

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=1; day=4; hr=8; min=57; sec=19; ms=388; ]

=====

Application No: 10539847

Version No: 2.0

Input Set:

Output Set:

Started: 2008-12-22 15:19:12.265

Finished: 2008-12-22 15:19:15.542

Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 277 ms

Total Warnings: 14

Total Errors: 0

No. of SeqIDs Defined: 66

Actual SeqID Count: 66

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (38)
W 213	Artificial or Unknown found in <213> in SEQ ID (39)
W 213	Artificial or Unknown found in <213> in SEQ ID (40)
W 213	Artificial or Unknown found in <213> in SEQ ID (41)
W 213	Artificial or Unknown found in <213> in SEQ ID (42)
W 213	Artificial or Unknown found in <213> in SEQ ID (43)
W 213	Artificial or Unknown found in <213> in SEQ ID (44)
W 213	Artificial or Unknown found in <213> in SEQ ID (45)
W 213	Artificial or Unknown found in <213> in SEQ ID (46)
W 213	Artificial or Unknown found in <213> in SEQ ID (47)
W 213	Artificial or Unknown found in <213> in SEQ ID (48)
W 213	Artificial or Unknown found in <213> in SEQ ID (49)
W 213	Artificial or Unknown found in <213> in SEQ ID (50)
W 213	Artificial or Unknown found in <213> in SEQ ID (51)

# SEQUENCE LISTING

<110> FAGAN, RICHARD JOSEPH  
 PHELPS, CHRISTOPHER BENJAMIN  
 RODRIGUES, TANIA MARIA  
 POWER, CHRISTINE  
 BIENKOWSKA, JADWIGA

<120> Metalloprotease Proteins

<130> C.R.107

<140> 10539847

<141> 2005-12-09

<150> GB 0230006.9

<151> 2002-12-23

<160> 66

<170> SeqWin99, version 1.02

<210> 1

<211> 52

<212> DNA

<213> Homo sapiens

<400> 1

atgggtggtgta gtggtgtcgt ggaggtcccc ttctgtctt ccagcaagta cg 52

<210> 2

<211> 18

<212> PRT

<213> Homo sapiens

<400> 2

Met Gly Gly Ser Gly Val Val Glu Val Pro Phe Leu Leu Ser Ser Lys

1 5 10 15

Tyr Asp

<210> 3

<211> 118

<212> DNA

<213> Homo sapiens

<400> 3

atgagcccag ccgccaggtc atcctggagg ctcttgcgga gtttgaacgt tccacgtgca 60

tcaggtttgt cacctatcag gaccagagag acttcatttc catcatcccc atgtatgg 118

<210> 4

<211> 39

<212> PRT

<213> Homo sapiens

<400> 4  
 Glu Pro Ser Arg Gln Val Ile Leu Glu Ala Leu Ala Glu Phe Glu Arg  
 1 5 10 15

Ser Thr Cys Ile Arg Phe Val Thr Tyr Gln Asp Gln Arg Asp Phe Ile  
 20 25 30

Ser Ile Ile Pro Met Tyr Gly  
 35

<210> 5  
 <211> 182  
 <212> DNA  
 <213> Homo sapiens

<400> 5  
 gtgcttctcg agtgtggggc gcagtggagg gatgcagggtg gtctccctgg cgcccacgtg 60  
 tctccagaag ggccggggca ttgtccttca tgagctcatg catgtgctgg gcttctggca 120  
 cgagcacacg cgggccgacc gggaccgcta tatccgtgtc aactggaacg agatcctgcc 180  
 ag 182

<210> 6  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 6  
 Cys Phe Ser Ser Val Gly Arg Ser Gly Gly Met Gln Val Val Ser Leu  
 1 5 10 15

Ala Pro Thr Cys Leu Gln Lys Gly Arg Gly Ile Val Leu His Glu Leu  
 20 25 30

Met His Val Leu Gly Phe Trp His Glu His Thr Arg Ala Asp Arg Asp  
 35 40 45

Arg Tyr Ile Arg Val Asn Trp Asn Glu Ile Leu Pro Gly  
 50 55 60

<210> 7  
 <211> 82  
 <212> DNA  
 <213> Homo sapiens

<400> 7  
 gctttgaaat caacttcatac aagtctcaga gcagcaacat gctgacgcc tatgactact 60  
 cctctgtgat gcactatggg ag 82

<210> 8  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<400> 8  
 Phe Glu Ile Asn Phe Ile Lys Ser Gln Ser Ser Asn Met Leu Thr Pro  
 1 5 10 15

Tyr Asp Tyr Ser Ser Val Met His Tyr Gly Arg  
20 25

<210> 9  
<211> 155  
<212> DNA  
<213> Homo sapiens

<400> 9  
gctcgcccttc agccggcgctg ggctgcccac catcacacca ctttggggccc ccagtgtcca 60  
catcgggccag cgatggaacc tgagtgcctc ggacatcacc cgggtcctca aactctacgg 120  
ctgcagccca agtggcccca ggccccgtgg gagag 155

<210> 10  
<211> 52  
<212> PRT  
<213> Homo sapiens

<400> 10  
Leu Ala Phe Ser Arg Arg Gly Leu Pro Thr Ile Thr Pro Leu Trp Ala  
1 5 10 15

Pro Ser Val His Ile Gly Gln Arg Trp Asn Leu Ser Ala Ser Asp Ile  
20 25 30

Thr Arg Val Leu Lys Leu Tyr Gly Cys Ser Pro Ser Gly Pro Arg Pro  
35 40 45

Arg Gly Arg Gly  
50

<210> 11  
<211> 419  
<212> DNA  
<213> Homo sapiens

<400> 11  
gggtcccatgc ccacagcact ggtaggagcc ccgccccggc ctccctatct ctgcagcggc 60  
ttttggaggc actgtcggcg gaatccagga gccccgacct cagtggttcc agtgcgggag 120  
gccagcccggt tectgcaggg cctggggaga gccacatgg gtgggagtcc cctgccctga 180  
aaaagctcag tgcagaggcc tcggcaaggc agcctcagac cctagcttcc tccccaagat 240  
caaggcctgg agcagggtgcc cccgggtgttg ctcaggagca gtcttggtg gccggagtgt 300  
ccaccaagcc cacagtccca tcttcagaag caggaatcca gccagtcctt gtccagggaa 360  
gcccagctct gccagggggc tgtgtacctt gaaatcattt caaggggatg tccgaagat 419

<210> 12  
<211> 139  
<212> PRT  
<213> Homo sapiens

<400> 12  
Ser His Ala His Ser Thr Gly Arg Ser Pro Ala Pro Ala Ser Leu Ser  
1 5 10 15

Leu Gln Arg Leu Leu Glu Ala Leu Ser Ala Glu Ser Arg Ser Pro Asp  
20 25 30

Pro Ser Gly Ser Ser Ala Gly Gly Gln Pro Val Pro Ala Gly Pro Gly  
 35 40 45

Glu Ser Pro His Gly Trp Glu Ser Pro Ala Leu Lys Lys Leu Ser Ala  
 50 55 60

Glu Ala Ser Ala Arg Gln Pro Gln Thr Leu Ala Ser Ser Pro Arg Ser  
 65 70 75 80

Arg Pro Gly Ala Gly Ala Pro Gly Val Ala Gln Glu Gln Ser Trp Leu  
 85 90 95

Ala Gly Val Ser Thr Lys Pro Thr Val Pro Ser Ser Glu Ala Gly Ile  
 100 105 110

Gln Pro Val Pro Val Gln Gly Ser Pro Ala Leu Pro Gly Gly Cys Val  
 115 120 125

Pro Arg Asn His Phe Lys Gly Met Ser Glu Asp  
 130 135

<210> 13  
 <211> 1008  
 <212> DNA  
 <213> Homo sapiens

<400> 13  
 atgggtggtgta gtggtgtcgt ggaggtcccc ttctgtctct ccagcaagta cgatgagccc 60  
 agccgccagg tcatacctgga ggctcttgcg gagtttgaac gttccacgtg catcaggttt 120  
 gtcacctatc aggaccagag agacttcatt tccatcatcc ccatgtatgg gtgcttctcg 180  
 agtgtggggc gcagtggagg gatgcagggtg gtctccctgg cggccacgtg tctccagaag 240  
 ggccgggggca ttgtccttca tgagctcatg catgtgtctgg gcttctggca cgagcacacg 300  
 cgggccgacc gggaccgcta tatccgtgtc aactggaacg agatcctgcc aggccttgaa 360  
 atcaacttca tcaagtctca gagcagcaac atgctgacgc cctatgacta ctctctgtg 420  
 atgcactatg ggaggctcgc cttcagccgg cgtgggctgc ccaccatcac accactttgg 480  
 gccccagtg tccacatcgg ccagcgatgg aacctgagtg cctcggacat caccggggtc 540  
 ctcaaactct acggctgcag cccaagtggc ccaggcccc gtgggagagg gtcccatgcc 600  
 cacagcactg gtaggagccc cggcccgcc tccctatctc tgcagcggct tttggaggca 660  
 ctgtcggcgg aatccaggag ccccgacccc agtggttcca gtgcgggagg ccagcccgtt 720  
 cctgcagggc ctggggagag cccacatggg tgggagtcct ctgccctgaa aaagctcagt 780  
 gcagaggcct cggcaaggca gcctcagacc ctagcttctt ccccaagatc aaggcctgga 840  
 gcaggtgccc ccggtgttgc tcaggagcag tcttggtgg ccggagtgtc caccaagccc 900  
 acagtcccat cttcagaagc aggaatccag ccagtccctg tccagggaag ccagctctg 960  
 ccaggggggt gtgtacctag aaatcatttc aaggggatgt ccgaagat 1008

<210> 14  
 <211> 336  
 <212> PRT  
 <213> Homo sapiens

<400> 14  
 Met Gly Gly Ser Gly Val Val Glu Val Pro Phe Leu Leu Ser Ser Lys  
 1 5 10 15

Tyr Asp Glu Pro Ser Arg Gln Val Ile Leu Glu Ala Leu Ala Glu Phe  
 20 25 30

Glu	Arg	Ser	Thr	Cys	Ile	Arg	Phe	Val	Thr	Tyr	Gln	Asp	Gln	Arg	Asp	35	40	45
Phe	Ile	Ser	Ile	Ile	Pro	Met	Tyr	Gly	Cys	Phe	Ser	Ser	Val	Gly	Arg	50	55	60
Ser	Gly	Gly	Met	Gln	Val	Val	Ser	Leu	Ala	Pro	Thr	Cys	Leu	Gln	Lys	65	70	75
Gly	Arg	Gly	Ile	Val	Leu	His	Glu	Leu	Met	His	Val	Leu	Gly	Phe	Trp	85	90	95
His	Glu	His	Thr	Arg	Ala	Asp	Arg	Asp	Arg	Tyr	Ile	Arg	Val	Asn	Trp	100	105	110
Asn	Glu	Ile	Leu	Pro	Gly	Phe	Glu	Ile	Asn	Phe	Ile	Lys	Ser	Gln	Ser	115	120	125
Ser	Asn	Met	Leu	Thr	Pro	Tyr	Asp	Tyr	Ser	Ser	Val	Met	His	Tyr	Gly	130	135	140
Arg	Leu	Ala	Phe	Ser	Arg	Arg	Gly	Leu	Pro	Thr	Ile	Thr	Pro	Leu	Trp	145	150	155
Ala	Pro	Ser	Val	His	Ile	Gly	Gln	Arg	Trp	Asn	Leu	Ser	Ala	Ser	Asp	165	170	175
Ile	Thr	Arg	Val	Leu	Lys	Leu	Tyr	Gly	Cys	Ser	Pro	Ser	Gly	Pro	Arg	180	185	190
Pro	Arg	Gly	Arg	Gly	Ser	His	Ala	His	Ser	Thr	Gly	Arg	Ser	Pro	Ala	195	200	205
Pro	Ala	Ser	Leu	Ser	Leu	Gln	Arg	Leu	Leu	Glu	Ala	Leu	Ser	Ala	Glu	210	215	220
Ser	Arg	Ser	Pro	Asp	Pro	Ser	Gly	Ser	Ser	Ala	Gly	Gly	Gln	Pro	Val	225	230	235
Pro	Ala	Gly	Pro	Gly	Glu	Ser	Pro	His	Gly	Trp	Glu	Ser	Pro	Ala	Leu	245	250	255
Lys	Lys	Leu	Ser	Ala	Glu	Ala	Ser	Ala	Arg	Gln	Pro	Gln	Thr	Leu	Ala	260	265	270
Ser	Ser	Pro	Arg	Ser	Arg	Pro	Gly	Ala	Gly	Ala	Pro	Gly	Val	Ala	Gln	275	280	285
Glu	Gln	Ser	Trp	Leu	Ala	Gly	Val	Ser	Thr	Lys	Pro	Thr	Val	Pro	Ser	290	295	300
Ser	Glu	Ala	Gly	Ile	Gln	Pro	Val	Pro	Val	Gln	Gly	Ser	Pro	Ala	Leu	305	310	315
Pro	Gly	Gly	Cys	Val	Pro	Arg	Asn	His	Phe	Lys	Gly	Met	Ser	Glu	Asp	325	330	335

<210> 15  
<211> 55  
<212> DNA  
<213> Homo sapiens

<400> 15  
atggagggtg tagggggtct ctggccttgg gtgctggggtc tgctctcctt gccag 55

<210> 16  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 16  
Met Glu Gly Val Gly Gly Leu Trp Pro Trp Val Leu Gly Leu Leu Ser  
1 5 10 15

Leu Pro Gly

<210> 17  
<211> 126  
<212> DNA  
<213> Homo sapiens

<400> 17  
gtgtgatcct aggagcgccc ctggcctcca gctgcgcagg agcctgtggt accagcttcc 60  
cagatggcct caccctgag ggaacccagg cctccgggga caaggacatt cctgcaatta 120  
accaag 126

<210> 18  
<211> 42  
<212> PRT  
<213> Homo sapiens

<400> 18  
Val Ile Leu Gly Ala Pro Leu Ala Ser Ser Cys Ala Gly Ala Cys Gly  
1 5 10 15

Thr Ser Phe Pro Asp Gly Leu Thr Pro Glu Gly Thr Gln Ala Ser Gly  
20 25 30

Asp Lys Asp Ile Pro Ala Ile Asn Gln Gly  
35 40

<210> 19  
<211> 62  
<212> DNA  
<213> Homo sapiens

<400> 19  
ggctcatcct ggaagaaacc ccagagagca gcttcctcat cgagggggac atcatccggc 60  
cg 62

<210> 20  
<211> 20



<212> PRT  
<213> Homo sapiens

<400> 20  
Leu Ile Leu Glu Glu Thr Pro Glu Ser Ser Phe Leu Ile Glu Gly Asp  
1 5 10 15  
  
Ile Ile Arg Pro  
20

<210> 21  
<211> 94  
<212> DNA  
<213> Homo sapiens

<400> 21  
agtcccttcc gactgctgtc agcaaccagc aacaaatggc ccatgggtgg tagtggtgtc 60  
gtggaggtcc ccttctgtct ctccagcaag tacg 94

<210> 22  
<211> 32  
<212> PRT  
<213> Homo sapiens

<400> 22  
Ser Pro Phe Arg Leu Leu Ser Ala Thr Ser Asn Lys Trp Pro Met Gly  
1 5 10 15  
  
Gly Ser Gly Val Val Glu Val Pro Phe Leu Leu Ser Ser Lys Tyr Asp  
20 25 30

<210> 23  
<211> 118  
<212> DNA  
<213> Homo sapiens

<400> 23  
atgagcccag cgcaccagtc atcctggagg ctcttgcgga gtttgaacgt tccacgtgca 60  
tcaggtttgt cacctatcag gaccagagag acttcatttc catcatcccc atgtatgg 118

<210> 24  
<211> 39  
<212> PRT  
<213> Homo sapiens

<400> 24  
Glu Pro Ser Arg Gln Val Ile Leu Glu Ala Leu Ala Glu Phe Glu Arg  
1 5 10 15  
  
Ser Thr Cys Ile Arg Phe Val Thr Tyr Gln Asp Gln Arg Asp Phe Ile  
20 25 30

Ser Ile Ile Pro Met Tyr Gly  
35

<210> 25

<211> 182  
<212> DNA  
<213> Homo sapiens

<400> 25  
gtgcttctcg agtgtggggc gcagtggagg gatgcaggcg gtctccctgg cgcccacgtg 60  
tctccagaag ggccggggca ttgtccttca tgagctcatg catgtgctgg gcttctggca 120  
cgagcacacg cgggcccacc gggaccgcta tatccgtgtc aactggaacg agatcctgcc 180  
ag 182

<210> 26  
<211> 61  
<212> PRT  
<213> Homo sapiens

<400> 26  
Cys Phe Ser Ser Val Gly Arg Ser Gly Gly Met Gln Val Val Ser Leu  
1 5 10 15  
Ala Pro Thr Cys Leu Gln Lys Gly Arg Gly Ile Val Leu His Glu Leu  
20 25 30  
Met His Val Leu Gly Phe Trp His Glu His Thr Arg Ala Asp Arg Asp  
35 40 45  
Arg Tyr Ile Arg Val Asn Trp Asn Glu Ile Leu Pro Gly  
50 55 60

<210> 27  
<211> 82  
<212> DNA  
<213> Homo sapiens

<400> 27  
gctttgaaat caacttcac aagtctcgga gcagcaacat gctgacgcc tatgactact 60  
cctctgtgat gcactatggg ag 82

<210> 28  
<211> 27  
<212> PRT  
<213> Homo sapiens

<400> 28  
Phe Glu Ile Asn Phe Ile Lys Ser Arg Ser Ser Asn Met Leu Thr Pro  
1 5 10 15  
Tyr Asp Tyr Ser Ser Val Met His Tyr Gly Arg  
20 25

<210> 29  
<211> 155  
<212> DNA  
<213> Homo sapiens

<400> 29  
gctcgccttc agccggcggt ggctgccac catcacacca ctttggggcc ccagtgtcca 60  
catcggccag cgatggaacc tgagtgcctc ggacatcacc cgggtcctca aactctacgg 120

ctgcagccca agtggcccca ggccccgtgg gagag

155

<210> 30

<211> 52

<212> PRT

<213> Homo sapiens

<400> 30

Leu Ala Phe Ser Arg Arg Gly Leu Pro Thr Ile Thr Pro Leu Trp Ala

1 5 10 15

Pro Ser Val His Ile Gly Gln Arg Trp Asn Leu Ser Ala Ser Asp Ile

20 25 30

Thr Arg Val Leu Lys Leu Tyr Gly Cys Ser Pro Ser Gly Pro Arg Pro

35 40 45

Arg Gly Arg Gly

50

<210> 31

<211> 419

<212> DNA

<213> Homo sapiens

<400> 31

gggtcccatgc ccacagcact ggtaggagcc ccgctccggc ctccctatct ctgcagcggc 60

ttttggaggc actgtcggcg gaatccagga gccccgaccc cagtgggtcc agtgcgaggag 120

gccagcccgt tctgtcaggg cctggggaga gccacatgg gtgggagtcc cctgccctga 180

aaaagctcag tgcagaggcc tcggcaaggc agcctcagac cctagcttcc tccccaagat 240

caaggcctgg agcaggtgcc cccggtgttg ctcaggagca gtcttggtg gccggagtgt 300

ccaccaagcc cacagtccca tcttcagaag caggaatcca gccagtcct gtccagggaa 360

gccagctct gccagggggc tgtgtacct gaaatcattt caaggggatg tccgaagat 419

<210> 32

<211> 139

<212> PRT

<213> Homo sapiens

<400> 32

Ser His Ala His Ser Thr Gly Arg Ser Pro Ala Pro Ala Ser Leu Ser

1 5 10 15

Leu Gln Arg Leu Leu Glu Ala Leu Ser Ala Glu Ser Arg Ser Pro Asp

20 25 30

Pro Ser Gly Ser Ser Ala Gly Gly Gln Pro Val Pro Ala Gly Pro Gly

35 40 45

Glu Ser Pro His Gly Trp Glu Ser Pro Ala Leu Lys Lys Leu Ser Ala

50 55 60

Glu Ala Ser Ala Arg Gln Pro Gln Thr Leu Ala Ser Ser Pro Arg Ser

65 70 75 80

Arg Pro Gly Ala Gly Ala Pro Gly Val Ala Gln Glu Gln Ser Trp Leu

85 90 95

Ala Gly Val Ser Thr Lys Pro Thr Val Pro Ser Ser Glu Ala Gly Ile  
100 105 110

Gln Pro Val Pro Val Gln Gly Ser Pro Ala Leu Pro Gly Gly Cys Val  
115 120 125

Pro Arg Asn His Phe Lys Gly Met Ser Glu Asp  
130 135

<210> 33  
<211> 1293  
<212> DNA  
<213> Homo sapiens

<400> 33  
atggagggtg taggggggtct ctggccttgg gtgctgggtc tgctctcctt gccagggtgtg 60  
atcctaggag cggccctggc ctccagctgc gcaggagcct gtggtaccag cttcccagat 120  
ggcctcacc ctaggggaac ccaggcctcc ggggacaagg acattcctgc aattaaccaa 180  
gggctcatcc tggaagaaac ccagagagac agcttcctca tcgaggggga catcatccgg 240  
ccgagtcctt tccgactgct gtcagcaacc agcaacaaat ggcccatggg tggtagtggt 300  
gtcgtggagg tccccttcct gctctccagc aagtacgatg agcccagccg ccaggtcatc 360  
ctggaggctc ttgcgaggtt tgaacgttcc acgtgcatca ggtttgtcac ctatcaggac 420  
cagagagact tcatttccat catccccatg tatgggtgct tctcgagtgt ggggcgcagt 480  
ggagggatgc aggtggtctc cctggcgccc acgtgtctcc agaagggccg gggcattgtc 540  
cttcatgagc tcatgcatgt gctgggcttc tggcacgagc acacgcgggc cgaccgggac 600  
cgctatatcc gtgtcaactg gaacgagatc ctgccaggct ttgaaatcaa cttcatcaag 660  
tctcgagaca gcaacatgct gacgccttat gactactcct ctgtgatgca ctatgggagg 720  
ctcgccttca gccggcggtg gctgcccacc atcacaccac tttgggcccc cagtgtccac 780  
atcgccagc gatggaacct gagtgcctcg gacatcacc gggtcctcaa actctacggc 840  
tgcagcccaa gtggccccag gcccgtggg agaggggtcc atgcccacag cactggtagg 900  
agccccgctc cggcctccct atctctgcag cggcttttgg aggcactgtc ggcggaatcc 960  
aggagccccg